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AUTHOR Waite, Linda J.  
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ABSTRACT

In this paper evidence on the causal connection between employment of women and sex-role attitudes is presented and evaluated. The effects of sex-role attitudes on labor force participation are reviewed, and changes in sex-role attitudes during the next fifteen years are projected. Information on the relationship between sex-role attitudes and labor market activity is used to make tentative projections of female labor force participation to 1990. The results of this analysis indicate that, if no further changes have taken place in individual attitudes toward sex roles since the early 1970's, succession of cohorts should result in an increase in female labor force participation of two to four percentage points by 1990. Also, if there is a continued trend toward acceptance by individuals of work roles for women during this period, then a rise in female labor force participation of nineteen to twenty-two points is implied by the results. The implications of these findings are discussed. (Author/CSS)

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PROJECTING FEMALE LABOR FORCE PARTICIPATION  
FROM SEX-ROLE ATTITUDES

Linda J. Waite

University of Illinois  
Urbana-Champaign

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Linda J. Waite

Abstract

Beliefs and attitudes about appropriate activities and behavior for men and women in our society have changed greatly during the last decade. Increasing acceptance of non-traditional, and especially non-familial, roles for women has been credited with causing, or at least facilitating the rapid rise in female labor force participation over the last five to ten years, since the less traditional a woman's outlook the more likely she is to be currently employed and to have a history of labor force activity. In this paper evidence on the causal connection between employment of women and sex-role attitudes is presented and evaluated. The effects of sex-role attitudes on labor force participation are reviewed and changes in sex-role attitudes during the next 15 years are projected. Information on the relationship between sex-role attitudes and labor market activity is used to make tentative projections of female labor force participation to 1990.

The results of this analysis indicate that, if no further changes have taken place in individual attitudes toward sex roles since the early 1970's, succession of cohorts should result in an increase in female labor force participation of 2 to 4 percentage points by 1990. If one assumes a continued trend toward acceptance by individuals of work roles for women during this period then a rise in female labor force participation of 19 to 22 points is implied by the results. The implications of these findings are discussed.

Beliefs and attitudes about the appropriate activities and behavior for men and women in our society have changed greatly during the last decade. Apparently this shift in sex-role attitudes has not been restricted to select subgroups of the population; women from all walks of life have undergone similar changes in beliefs since the mid-1960's (Mason et al., 1976). Increasing acceptance of non-traditional, and especially non-familial, roles for women has been credited with causing, or at least facilitating, the rapid rise in female labor force participation over the last five to ten years, since the less traditional a woman's outlook the more likely she is to be currently employed and to have a history of labor force activity. If changing attitudes do indeed result in more female workers, then knowledge about this relationship may be of use in projecting employment of women during the next several decades. Projections of female labor force participation done by the Bureau of Labor Statistics have consistently underestimated growth in the female work force (Johnson, 1973). Inclusion of a wider range of variables than currently used in making these projections may improve their accuracy. Since women's sex-role attitudes appear to have a strong association with their market activity, such attitudes should be assessed for their possible usefulness, along with other economic, social and demographic variables, in projecting female labor force behavior.

In this paper evidence on the causal connection between sex-role attitudes and employment of women is presented and evaluated. The effects of sex-role attitudes on labor force participation are reviewed, and the impact of these views for various subgroups of women, for example blacks and whites, married and single, are compared. Changes in sex-role attitudes during the next 15 years are projected. Information on the relationship between sex-role attitudes and labor market activity is used to make tentative projections of female labor force participation to 1990.

### The Relationship Between Sex-Role Attitudes and Female Employment

Most studies of employment of women which have included a measure of attitudes toward sex roles have found these beliefs to strongly predict market behavior, whether this is defined to mean current participation (Dowdall, 1974) plans for work in the future (Waite and Stolzenberg, 1976) or the amount of recent employment (Egge and Meyer, 1970). The dimension of sex-role attitudes tapped seems to make little difference. The woman's feeling about the propriety of employment of mothers of young children is a commonly-used indicator of sex-role attitudes (Mason et al., 1976; Mason and Bumpass, 1975; Retert and Bumpass, 1974; U.S. Dept. of Labor, 1973; U.S. Dept. of Labor, 1971), and one study (Morgan et al., 1966) reports the husband's views on this subject to be predictive of his wife's employment. Another frequently used measure is the woman's beliefs about the effect that labor force participation of wives has on their families (Waite and Stolzenberg, 1976; Dowdall, 1974). Next, the relationship between sex-role indicators of all the types mentioned above and labor force participation of women will be reviewed.

While the measures of sex-role attitudes, described briefly above, tap only one dimension of beliefs about appropriate roles for the sexes, whether women should work, this dimension is clearly the most salient for women making decisions about employment. Views on other aspects of sex roles, such as division of labor within the home, marital power and decision-making, child bearing and child rearing choices or women's rights on the labor force may bear on labor force behavior but should do so indirectly, perhaps by making employment harder or easier for the woman involved. For this reason, and because the impact of these other dimension of sex-role attitudes on women's labor market activity has never been systematically analyzed, only attitudes toward employment of women will be examined here. Two kinds of questions are typically used to tap attitudes toward work by women as a group. First, respondents are asked whether, in their opinion, women should work and under

what conditions. These conditions might include the presence of young children, the woman's desire to work, her husband's attitude or a need for the money. The second type of question asks about views on the effect of employment of married women on their families--does work by wives weaken marital relationships or harm preschool children, do working wives neglect their families and so on. Presumably, individuals who feel that women should not work under certain circumstances base that opinion on the belief that employment of women has some negative consequences, for the woman, her family or society as a whole. The more negative consequences perceived or the more serious the consequences are felt to be, the less likely the person should be to approve of work by women in general. Thus, attitudes about the propriety of employment of women and attitudes about the impact of this employment may be interpreted as reflecting the same underlying structure of beliefs.

Those who believe that women in general should hold a job if they want to, and who believe that no one is harmed if they do so, are substantially more likely to be employed than are those who are less accepting of women's role in the labor market. In 1967, the first year of the National Longitudinal Survey of Mature Women 30-44 (NLS), married women who expressed "permissive" attitudes toward employment of mothers of school-aged children had labor force participation rates about 25 percentage points higher than did those who were "opposed" to such employment (Egge and Meyer, 1970:71). This relationship held for white and for black wives, with and without young children. A similar finding was reported when weeks in the labor force during the previous year was used as the measure of market activity. However, no effect of sex-role attitudes on current labor force participation was found among respondents in the National Longitudinal Survey of Young Women in 1968, except among white, married women who themselves had young children. Since the

questions asked tap views on the propriety of work by mothers of young children it is understandable that there is little effect on the current work choices of those who are unmarried or childless.

The relationship between attitudes favorable to employment of women and actual work decisions found when no other factors were controlled also appears when controls for social, economic and demographic factors are introduced. Retert and Bumpass (1974) report that the belief that preschool-age children are not harmed if their mother works increases the probability that the woman held a job when her last child was less than two years old by 19 percentage points, net of the effect of structural, economic and life cycle variables. A similar relationship was found between believing that a mother can return to work when her child is less than two years old and actual employment of the woman during that period.

There are, however, theoretical and empirical reasons for believing that the impact of a woman's sex-role attitudes on her own employment choices may vary by socioeconomic status, especially income. Dowdall (1974) hypothesizes that attitudes about whether women should work have less impact on the labor market decisions of wives with low family incomes, those for whom job-holding is presumably less discretionary, than for others. In this study, white, married women 15 to 64 years old who had borne at least one child and were living in Rhode Island were asked a series of six questions on approval of work by married women under a variety of circumstances. Five of these items were used to form a Guttman scale of sex-role attitudes. The present employment status of the woman was found to depend more heavily on these attitudes than on her husband's income, the age of her youngest child or her educational attainment. A one-point change in the 6-point attitude scale was associated with a 13 percent age point increase in the probability of current employment. In addition, only a weak association was found between these other variables and the wife's sex-role attitudes. The impact of views on employment of

wives was found to depend on the woman's family income, as hypothesized.

Sex-role attitudes appear to be especially significant inputs to employment decisions among women with moderate and high family incomes, those for whom work is perhaps more discretionary. For low-income wives these beliefs have a slightly smaller effect on labor market behavior.

Some support for Dowdall's argument that attitudes should matter less for women who may be under financial pressure to work because of low family incomes comes from a study by Samson et al. (1975). In families which were classified as "disadvantaged" the woman's agreement with the statement that "It is all right for a woman to work outside the home just because she likes to" had no significant influence on the likelihood that she was currently employed. Among "typical" families this same measure was significantly related to labor force status; a one-point change in the 5-point scale was associated with a 5 percentage point rise in the probability of current employment.

The one important subgroup of the population for which little is known about the role of sex-role attitudes in employment decisions is blacks.

A number of studies on this issue using samples of white women have been done (Dowdall, 1974; Retert and Bumpass, 1974) but comparisons between the races are rare. In Dual Careers, Egge and Never (1970) report no differences between black and white married women in the zero-order relationship between attitudes toward the propriety of employment of mothers of young children and either current labor force participation or weeks in the labor force during the last year. Among the NLS young women, however, a relationship between these attitudes and current labor force status was found for white married women with young children but not for their black counterparts.

Since social, economic and demographic differences between the races are substantial, the absence of controls for these factors in these two studies is

a serious problem. Only one analysis which includes these essential controls could be found. Kim, (1971) using the 1967 NLS mature women survey, estimated the effect of attitudes toward work by mothers of young children on labor force status during the survey week separately for black and for white married women. Controls for important economic, but not for social or demographic, factors were included. The metric, partial regression coefficient for attitudes toward work by mothers were not significantly different for black and white married women (.02 versus .03). These results imply that a shift in a sex-role attitudes from strongly negative to strongly positive would result in an increase in the probability that an individual woman was in the labor force of from 24 to 36 percentage points. While this is scanty evidence on racial differences in the impact of work attitudes on labor market choices, this evidence indicates that such differences as exist may be modest.

Attitudes toward employment of women, besides influencing current labor force status, also have been found to affect long-range employment plans. Using the 1968 to 1973 waves of the National Longitudinal Survey of Young Women 14 to 24 years old in 1968, Waite and Stolzenberg (1976), after controlling for the effect of important social, economic and demographic factors, found a strong effect on plans for work at age 35 of the woman's beliefs about the impact of employment of a wife on her family. These work attitudes, measured by a scale which ranged from 0 to 45; had the same effect on the employment plans of never-married women as on the plans of those currently married and living with their husbands. For both groups of women, a hypothetical change from one end of the scale to the other, from strongly negative to strongly positive, would increase the likelihood that the woman intended to hold a job at age 35 by 58 percentage points.

The effect of attitudes toward sex roles on plans for work at age 35

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was found by Stolzenberg and Waite (1977) to vary little among the NLS young women by age or stage in the life cycle. This is shown by the unstandardized, partial regression coefficients for work attitudes presented below.

Age in 1973

19 & 20	.01730
21 & 22	.01795
23 & 24	.01679
25 & 26	.01348
27 & 29	.01241

Life Cycle Stage, 1973

never married, no children	.01543
married, no children	.02050
married, some children, expect more	.01501
married, children, expect no more	.01532

The impact on young women's intentions to hold a job when they are 35 of their beliefs about the effect of work by wives and mothers on their families does not vary by their current age or status largely because virtually all women expect to be wives and mothers by the time they are 35. Only 6 percent of the NLS young women reported in 1973 that they expected to remain permanently childless (Suter and Waite, 1977). These same work attitudes should have little effect on the current labor force status of young women in some life cycle stages or ages; large effects in others, as Eggé and Meyer (1970) report.

The one other type of attitude toward work which is commonly used in analyses of female labor force participation must be mentioned here. The attitudes of the husband toward work by his wife has been found in a substantial number of studies to strongly predict her current employment status. However these attitudes, which might more accurately be called tastes or preferences, are difficult to interpret. Since questions on the husband's attitude toward the actual or potential employment of his spouse are invariably asked of the wife herself, what is actually obtained is the woman's perception of her husband's views. One would expect this perception to be influenced by what the wife wants to do or feels she should do. In addition,

characteristics of the individual situation are taken into account to an unknown degree. Even if the husband's attitudes are accurately represented by the wife, these may reflect his attitude toward sex roles, the special needs of the family, the conditions of the local labor market, his wife's preferences, and her earning potential, among other factors. And, as several researchers have argued (Cain, 1966), the husband's attitudes may merely reflect the current situation. Thus, husbands' attitudes toward work outside the home by their own wife appear to be of little use for projecting female labor force activity and will not be discussed further.

#### Causality

Some researchers have argued that attitudes toward employment are unimportant in explaining work behavior of women. Bowen and Finegan (1969:240) comment on "how much progress it seems possible to make in accounting for the increased participation of married women over the postwar period without falling back on such explanations as 'changes in attitudes toward the working wife'."

While the body of research summarized above clearly demonstrates the strength and pervasiveness of the connection between sex-role attitudes and employment of women, causal direction has not been established. Attitudes toward the propriety of employment of wives and mothers may influence the actual behavior of the woman or, alternatively may simply reflect the reality. The somewhat scanty evidence on this issue seems to indicate that the views of the woman on wisdom of labor force participation of mothers in general have a substantial causal impact on her own employment. First, the fact that attitudes measured at one time tend to be good predictors of later behavior indicates that beliefs do not merely reflect the current situation. Labor market entry and withdrawal from 1967 to 1969 were found to be strongly

related, among white women in the NLS Older Women Survey, to 1967 attitudes toward employment of mothers. Those who were initially opposed to employment of mothers were substantially more likely than others to have left the labor force during the next two years (Kim and Murphy, 1973), at least among white women. The relationship between labor force withdrawal and sex-role beliefs is weaker for black women. Among white women who were not in the labor force in the earlier year, those who favored paid work by mothers were more likely than those opposed to have entered the labor market.

The predictive validity of attitudinal indicators, at least over a two-year period, appears to be substantial. In a study of white, married, female college graduates, Spitz and Spaeth (1976) examine the effect of attitudes of the couple, measured as a composite of the separate views of the husband and the wife, on what they call the wife's investment in human capital. Women who were either enrolled in school or employed were considered to be investing in human capital, others were not. The attitudes of the couple in 1964 were found to have an effect on the wife's human capital investment in 1968, four years later, almost as large as the impact of these attitudes on her 1964 human capital investment. That is, the couple's attitudes in 1964 toward employment of the wife influenced her job and schooling choices in 1964 and in 1968 to a similar extent. Thus, work-related attitudes are highly predictive of behavior several years later. While one could not argue on the basis of these few studies that causality runs only and always from sex-role attitudes to labor market behavior, it seems reasonable to conclude that women's beliefs do have some substantial causal impact on their employment decisions.

### Changes in sex-role attitudes

Up to this point the discussion has centered on the relationship between sex-role attitudes and labor market behavior of women, and the direction of causality in that relationship. How can the conclusions reached in the research discussed above be used to provide information on the future course of female labor force participation? At least one researcher (Ferber, 1977) has explicitly argued that changes in sex-role attitudes have been a prime mover behind the recent rapid influx of wives into the job market.

Ferber hypothesizes that while other possible causes of past increases in employment of married women, for example expansion of industries employing females, increasing education, declines in the presence of young children, changing technology of housework, are likely to be relatively unimportant in the future, attitudes toward sex-roles could continue to change, thus resulting in a continuation or even acceleration of the trend toward more work by women. The next question is: what sorts of shifts in sex-role beliefs can be expected in the near future? To begin to address this question, changes in sex-role attitudes in the past are reviewed.

While literature on increases in female labor force participation is full of references to changing tastes, values, norms and attitudes, there are only two studies which try to estimate the extent of these changes.

Oppenheimer (1970) used poll data to examine changes in attitudes about women in the labor force from the 1930's to 1960. By the 1930's employment of single women was generally accepted, but that of married women was not. During the 1930's attitudes toward work by wives were generally negative; less than 25 percent approved of married women holding a job and, depending on the circumstances presented in the attitude question, from 40 to over 80 percent disapproved. Oppenheimer found relatively little alteration

of views toward market work by married women from 1937 to 1945, despite the large numbers of women employed during wartime. However, when respondents were asked about job-holding by wives for "patriotic" reasons during wartime, approval rose considerably. This conditional acceptance of work by married women was interpreted by Oppenheimer as reflecting considerable flexibility in these sex-role attitudes. From 1949 to 1960 poll data on attitudes toward market work by wives were not collected, perhaps because the issue became less salient. A survey done in 1960 shows that during the intervening years approval of employment of married women increased very little. In that year only 34 percent of the husbands interviewed held favorable attitudes toward work by wives (Oppenheimer, 1970:50).

A study by Mason, et al. (1976) uses data from five sample surveys between 1964 and 1974 to investigate changes in the sex-role attitudes of women in the U.S. To insure comparability between surveys pairs of samples were analyzed after adjusting each sample to match the next one as closely as possible. Thus it is not possible to compare between pairs of samples. The results of this study indicate that substantial change in the direction of more egalitarian beliefs about sex roles occurred in the last decade. The change in sex-role attitudes which occurred between 1964 and 1974 was not confined to select groups of women but apparently affected most segments of the population. The authors conclude that:

While the sex-role attitude changes we observed appear to have been "ideological" (that is, not simply a product of women's personal circumstances and positions within society), we found little evidence that these changes were caused by the women's movement and its rise. (Mason, et al., 1976:594).

Findings of the Mason et al. study on the amount of change in sex-role attitudes from 1964 to 1974 can be used as the basis for projections of changes in sex-role attitudes in the future. In Table 1 the percent of

respondents who expressed agreement with the statement that "a working mother can establish just as warm and secure a relationship with her children as a woman who does not work" (WARM RELATIONS) for each of three pairs of surveys done between 1964 and 1974 is presented. Also given is the mean, for the 1970-1973 and 1970-1974 comparisons, of a scale of sex-role attitudes which comprises eight questions on various aspects of sex roles. In the bottom panel of Table 1 change from 1968 to 1972 in the mean on a scale of attitudes of the NLS young women toward propriety of work by mothers of young children (Suter and Waite, 1977) is presented. These scales have been converted to a common metric, 1 to 100, for comparability. Annual change in sex-role attitudes have been calculated. As the reader will note the amount of change in sex-role attitudes shown depends on the surveys compared and the questions used. However, in the comparisons reported by Mason et al., a general pattern does seem to exist. With the exception of responses to WARM RELATIONS in the 1970-1973 comparison, annual changes in sex-role attitudes were fairly similar, ranging from 3.2 to 5.0 points. However, the only longitudinal survey included in Table 1, the 1968 to 1972 comparison based on the NLS young women shows an annual change of only 2.4 points during that period. No one of these comparisons is obviously better than the others. The true rate of change during the late 1960's and early 1970's probably lies somewhere in the ranges shown in Table 1.

#### Projecting female labor force participation

The information on the relationship between sex-role attitudes and market activity of women, and on recent changes in these attitudes will be used to make tentative projections in the following way. Several assumptions about the rate of change in sex-role attitudes are used to produce a range of estimates of the distribution of these attitudes in 1975, 1980, 1985

and 1990. As there is no empirical basis for estimating change in the impact of sex-role attitudes on work by women, this effect will be assumed to remain constant. While there is no compelling evidence that this is the case, the absence of any research on such changes precludes estimation of them. The assumption is also made that no substantial change in marital and childbearing patterns occurs by 1990. The effect of sex-role attitudes on labor market choices, in the form of an unstandardized, partial regression coefficient, is then applied to the various projections of the mean level of such attitudes. The result is an estimate of the impact that continued increases in acceptance of nontraditional roles would have on the future level of work by women, given the limitations mentioned above. The first step in this process is to generate estimates of mean levels of sex-role attitudes for various years.

Rates of change in the percent of women giving equalitarian responses to questions on the effect of employment of a mother on her family, found by Mason et al. will be used along with changes in a general sex-role attitude scale to generate one estimate of the future course of sex-role beliefs. This estimate is based on the assumption that the "current" rate of change in beliefs about sex roles will continue unabated. But one could reasonably argue that recent changes in American society, for instance the extremely low birth rates of the past few years, the declines in the average number of children expected by young women, increases in labor force involvement of women, might cause an acceleration in the tempo of liberalization of beliefs about roles for the sexes. Consensus on the issue of proper sex roles is not a logical impossibility: such a consensus existed during the 1930's that married women should not work (Erskine, 1970). There is no structural reason that employment of wives should not generally be considered acceptable.

In 1970 95 percent of ever-married women 18 to 44 years old thought that men and women should be paid the same money if they do the same work (Mason et al., 1976:586). Such a high level of agreement in this one aspect of sex-role attitudes indicates that complete consensus is possible, perhaps increasingly likely, on the acceptability of labor force participation of women. The question may be not so much will general agreement be reached but how soon.

While it seems unlikely that in the next two decades acceptance and approval of labor force participation of wives and mothers will decrease significantly, further increases are not assured. The "low" projection of changes in sex-role attitudes, therefore, assumes no further liberalization of beliefs of individual women. However, older cohorts tend to also have those characteristics, such as relatively low educational attainment, labor force activity, and average socioeconomic status, which are associated with traditional sex-role attitudes (Huber et al., 1978). As these cohorts age, move out of the labor force and into retirement, and are replaced by younger cohorts with more egalitarian attitudes toward sex roles, the mean acceptance of nonfamilial roles for women in the population of women in the prime work years should increase, even in the absence of further change in the attitudes of individual women.

Three estimates of change in sex-role attitudes between the mid-1970's and 1980 will be made. The range of annual changes in views on sex-roles, reported in Table 1, form the basis for a high and a moderate estimate of the future rate of change. The high estimate assumes an annual rate of change in sex-role attitudes of 5.0 points, approximately the rate of change observed between 1970 and 1974 in WARM RELATIONS and between 1970 and 1973, as well as between 1970 and 1974 in the scale of sex-role attitudes. The

moderate estimate assumes the rate of change found from 1968 to 1972 among the NLS young women, 2.4 points per year. The low estimate assumes no further change from the early 1970's in the beliefs of individual women but changes in the mean attitudes of the female population 18 to 64, the prime working ages, as a result of the succession of cohorts. The high and moderate estimates assume the rates of change in attitudes of individual women stated above, in addition to shifts in mean sex-role attitudes due to the replacement of older and more traditional by younger and more liberal cohorts.

Since all estimates of the future distribution of sex-role attitudes begin with that change which results from the succession of cohorts, estimating the magnitude of that shift is the logical place to begin. To estimate how much average population attitudes will change with the replacement of an old cohort with a young cohort, one needs to know to what extent the attitudes of these two groups differ. None of the studies of attitudes toward sex roles which have been reviewed up to this point include information on differences in these beliefs by age. A rough idea of age variations in attitudes on this topic can be obtained by examining a recent study of opinions on the Equal Rights Amendment. Huber et al. (1978) present the distribution, by age, of responses to several questions on attitudes toward women's work roles. The sample on which this study is based is representative only of the state of Illinois.

Illinois may be somewhat more conservative than the nation as a whole: it has not yet ratified the ERA. However, differences in sex-role attitudes between Illinois and the nation as a whole should be largest at the oldest ages. If this is the case then the estimate of the effect of succession of cohorts on sex-role attitudes is an over estimate of the true effect. However, this bias, if it exists, should be relatively modest. The table below gives the percent of female respondents in the Huber survey giving equalitarian

responses to the two questions on work-related sex-role attitudes that are most relevant here (Huber et al., 1978:22). These questions asked whether women by nature are happiest at home and whether it is more important for the husband than for the wife to have a good job. The responses to these questions, by age of the woman, are shown in column 1 and column 2, respectively, of the table below. Disagreement with each of these questions constituted an egalitarian response.

% disagreeing with statement that:

	women are happiest at home	more important for husband to have a good job
total, all ages	54	17
18-29	68	35
30-44	61	24
45-54	43	15
55 and over	37	4

The mean percent giving liberal or egalitarian responses to these two questions was about 15 percentage points higher than average for those under 30 and about 12 percentage points lower than average for those 45 or older. The assumption will be made that a similar age pattern of sex-role attitudes exists for the adult female population as a whole. From this assumption it is a simple matter to calculate the amount of change in average sex-role attitudes in this population due to cohort succession. Table 3 gives the Series II, or intermediate, projections of the female population 18 to 64 in 1980, 1985 and 1990, and the population estimates for 1975 done by the U.S. Bureau of the Census. As a starting point in the projection of sex-role attitudes, the mean of the sex-role attitude scale found in 1973 and in 1972 was used (see Table 1). Thus, 59 percent of the adult female population is assumed to hold egalitarian or liberal views on sex roles in general and on work by women in particular. A figure somewhat lower than the highest

percent holding egalitarian views shown in Table 1 was chosen as the sample on which all the comparisons in Table 1 were based were substantially younger, and probably more accepting of non-familial roles for women, than the population of Females 18-64. Thus, the percent holding egalitarian sex-role attitudes in 1975 is assumed to be distributed as follows:<sup>3</sup>

% holding egalitarian sex-role attitudes in 1975, by age.

18-29	74%
30-44	59%
45-64	47%

By 1980, the group 60-64 in 1975 has passed out of the population and a new group of 18 to 22 year-olds has entered the population. These new entrants to the prime working ages are assumed to hold the same sex-role attitudes as those 18 to 22 in 1975. The other age-groups are assumed to carry their 1975 sex-role attitudes with them as they age. Thus, the distribution of beliefs about sex roles in 1980, 1985 and 1990 by age in those years is as follows:

% holding egalitarian sex-role attitudes by age.

	1980	1985	1990
74%	18-34	18-39	18-44
59%	35-49	40-54	45-59
47%	45-64	50-64	55-64

The percentage holding egalitarian views in each year can then be calculated as a simple weighted average of this distribution. These percentages, and the resultant change in sex-role attitudes during these years, are given in Table 4 as the low estimate due only to cohort succession. The high and moderate estimates of beliefs about sex roles are obtained by applying the assumed annual change in attitudes, given on pp. 14-15, to the number of years in the period and adding this change in individual attitudes to the shifts due to cohort succession.

Once the distribution of attitudes toward sex roles has been projected, the shifts in female labor market activity implied by the increased acceptance of non-traditional roles for women can be estimated following a procedure used by Bowen and Finegan (1969: 207-41). The regression-standardized change in the probability of labor force participation due to a 1 percentage point change in sex-role attitudes, derived from a cross-sectional regression of labor market behavior on these attitudes and other factors, is multiplied by the change in attitudes during the relevant period. Table 2 shows these coefficients for various marital and child status groups, as well as for women of various ages. As the reader will note, these coefficients differ very little between groups. The effects of sex-role attitudes on plans for labor force participation at age 35 shown in the upper panels of Table 2 are very similar to the effects of sex-role attitudes on current labor force status shown in the lower panels. When all scales are standardized to range from 1 to 100, the effects found with different samples and differing control variables do not differ much, ranging from .502 to .0064. An intermediate value was chosen for use in projecting female labor force participation. The coefficient for all marital statuses in the upper panel of Table 2 was selected as it fell between the extremes shown in the table. The regression-standardized, percentage-point change in labor force participation associated with a one percentage-point change in sex-role attitudes, .54, was applied to the estimates of change in these attitudes shown in the lower panel of Table 4. The results of this procedure are given in Table 5.

The calculations in Table 5 assume that changes in the sex-role attitudes of all females 18 to 64 have the same impact on their labor market choices. One could argue, however, that these attitudes only influence the market choices of married women and perhaps only those of married women with children at home. Clearly the work decisions of a woman who feels that mothers

should not work will not be influenced by her beliefs if she has no children. And most unmarried women with no children have no source of support but their own earnings. Their beliefs about sex roles should have little impact on their work decisions. So, clearly views on sex-roles influence the labor force activity of married women with children at home but not that of single women with no children. The impact of these beliefs on the formerly married probably lies somewhere in between these two extremes. In 1975, 16 percent of women 18 to 64 were never married, 69 percent were currently married and the balance, 15 percent, were separated, widowed or divorced (U.S. Bureau of the Census, 1975b:8). In that same year, 63 percent of all husband-wife families in which the head was less than 65 years of age had a member under 18 years old (U.S. Bureau of the Census, 1975c:18). Thus, sex-role attitudes should affect the work decision of a maximum of 84% of females 18 to 64, all those ever married, and a minimum of 44%, those currently married with family members under 18. Applying these percentages to the calculations in Table 5 gives the range of change in female labor force participation corrected for marital and child status, shown in the bottom panels of Table 5. These high and low figures may be considered as bounding the range of changes in female labor force participation due to increasing acceptance of non-familial roles for women.

These results suggest that, given the substantial number of assumptions made, if no further changes have taken place in individual attitudes toward sex roles since the early 1970's succession of cohorts should result in an increase in female labor force participation<sup>4</sup> by 1990 of 2 to 4 points. This is a modest effect. If one assumes a continued trend toward acceptance by individuals during this period of work roles for women then a rise in female labor force participation of 10 to 22 points is implied by these results. Several points about these results must be made here. First, changing sex-role

attitudes can lead to increases in the rate of participation of women in the labor force only until complete acceptance of non-familial roles for women is achieved. This ceiling effect is responsible for the slowing of the growth in female labor force activity after 1980 under the high projections. This ceiling also limits the total amount of growth in labor market activity of women due to changes in sex-role attitudes as measured here. Succession of cohorts plus increasing acceptance by individuals of work roles for women may directly result in a rise in female labor force participation of about 20 points.

Second, changes in sex-role attitudes may increase the proportion of women who want jobs at the same time that economic conditions decrease the number of jobs available. The discussion in this paper has focused on the supply of women workers. But clearly women (and men) who want to work must find someone to hire them before they can become employed. Demand for female workers is, for this reason, an important determinant of women's labor market activity. Oppenheimer (1970) argues that much of the increase in female labor force participation from 1940 to 1960 was due to rising demand rather than increased supply of women workers. Some evidence indicates that traditionally female occupations will not expand sufficiently in the next decade or two to absorb the increasing number of women available for employment (Oppenheimer, 1972). But the supply of young male workers will decline from the present to 1990 because the small cohorts born after the baby boom are reaching adulthood (Easterlin, 1978). Thus, it could be the case that while a decreased supply of young, single female workers forced employers to hire older married mothers during the 1950's, a diminished supply of young male workers in the 1980's may pressure bosses to hire women for positions traditionally filled by men. But such speculation must remain just that. Explicit consideration of the role of demand factors in changes in female

labor force participation is outside the scope of this paper. Finally the indicators of sex-role attitudes used in this paper and in virtually all research on this subject, ask whether the person feels that working by a wife and mother harms her<sup>s</sup> family in some way. This type of question essentially taps the presence or absence of a negative feeling about employment of women. But the existence of a negative feeling about women not working is never explored. That is, traditional sex-role beliefs specify that a man should work all his life to support himself and his family unless extraordinary circumstances intervene. Similar beliefs about the moral responsibility of a woman to work to support herself and her family could develop. In fact, there is some anecdotal evidence which indicates that some social pressure is being brought to bear by friends and spouses on young women who do not hold a job. The status of the housewife and mother roles may be declining as more women enter the labor force and birth rates continue to fall. Such changes in sex-role attitudes, untapped by any of the measures examined here, could lead to increases in female labor force participation which are much larger than those projected.

FOOTNOTES

<sup>1</sup> While some analyses of the effect of sex-role attitudes on the labor market activity of women use labor force participation as the measure of this activity, most use whether the women in question is currently employed. Since a small proportion of women in the labor force are unemployed at any point, 6.1 percent in 1974 (Manpower Report of the President, 1975), this discrepancy should have little substantive impact.

<sup>2</sup> The scale used by Kim ranged from 3 to 15. Thus, for black women the metric coefficient of .02 implies that a change from one end of the scale to the other, a change of 12 points, would increase the probability that an individual woman was in the labor force by 24 percentage points. For white women the comparable figure was 36 percentage points. For white women the comparable figure was 36 percentage points.

<sup>3</sup> It was assumed that the pattern of age differences in sex-role attitudes found by Huber et al. (1978) held for the population as a whole. So beginning with the mean percentage of the female population holding egalitarian sex-role attitudes found by Mason et al. (1976) it was calculated that this percentage would be about 15 percentage points higher for the youngest women and 12 percentage points lower for the oldest. These calculations produced the figures in this text table.

<sup>4</sup> Since the coefficients shown in Table 2 refer to plans for work at age 35, and some of those who would like to work will be unable to find a job, these coefficients can be interpreted as reflecting the effect of sex-role attitudes on the probability an individual woman is in the labor force.

Table 1. Attitudes toward work by mothers and sex roles: 1964-1974  
 (All scales run from 1 (disapprove) to 100 (approve))

	WARM RELATIONS	SEX-ROLE ATTITUDE SCALE
1964	53.5	n.a.
1970	72.6	n.a.
change: 1964-1970	19.1	n.a.
annual change	3.2	n.a.
1970	48.4	52.8
1973	53.5	66.3
change: 1970-1973	5.1	13.5
annual change	1.7	4.5
1970	56.4	55.5
1974	73.1	75.3
change: 1970-1974	16.7	19.8
annual change	4.2	5.0
1968	n.a.	46.3
1972	n.a.	55.8
change: 1968-1972	n.a.	9.5
annual change	n.a.	2.4

Sources: The 1964-1970, 1970-1973 and 1974 comparisons are taken from Mason et al. (1976) unpublished tabulations.

The 1968 to 1972 comparison is taken from Suter and Waite (1977).

The 1964-1970 sample includes married women college graduates 23-29.

The 1970-1973 sample is restricted to once married, currently married women who are 25-34, who have been married 5 to 15 years and who currently live in the South and do not live on farms.

The 1970-1974 sample includes ever-married women, 18-44, who reside in SMSAs of one million or more in the Northeast or Northcentral states, who are currently employed or have worked within 24 months of the interview and who are not attending school.

The 1968-1972 comparison includes all respondents in the National Longitudinal Survey of Young Women 14-24 in 1968 who answered the relevant questions.

Table 2. Partial, unstandardized regression coefficients relating sex-role attitudes to women's plans for future labor force participation and to current labor force participation.

Plans for age 35<sup>1</sup>

<u>All Marital Statuses</u>	<u>b</u>	<u>regression-standardized* percentage point change</u>
Never married	.015	.0054
Married, no children	.021	.0076
Married, children, expect more	.015	.0054
Married, children, expect no more	.015	.0054
All marital statuses	.015	.0054

Age

19-20	.017	.0061
21-22	.018	.0065
23-24	.017	.0061
25-26	.013	.0047
27-29	.012	.0043

Current labor force participation

<u>Married women 30-44<sup>2</sup></u>	<u>b</u>	<u>regression-standardized percentage point change</u>
white	.03	.0036
black	.02	.0024
<u>White married mothers 15-64<sup>3</sup></u>	.129	.0064
<u>Married mothers<sup>4</sup></u>	.05	.0020

\*All scales were standardized to run from 1 (disapprove) to 100 (approve). A one-point change in sex-role attitudes on this scale increases the probability that an individual woman plans to work at age 35 by .54 percentage points, for example.

Sources: <sup>1</sup>Waite and Stolzenberg (1976), Stolzenberg and Waite (1977) and unpublished calculations.

<sup>2</sup>Kim (1971:59-61)

<sup>3</sup>Dowdall (1972:252)

<sup>4</sup>Sampson et al. (1975:274) "typical" families.

Table 3. Series II projections of the female population 18 to 64 years old:  
1975 to 1990

	(numbers in 000's)			
	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
total 18-64	63646	68734	72690	75484
18-19	4143	4222	3630	3555
20-24	9559	10406	10194	8927
25-29	8499	9509	10341	10128
30-34	7071	8681	9714	10545
35-39	5947	7157	8774	9793
40-44	5716	5987	7201	8815
45-49	6062	5638	5908	7098
50-54	6215	6008	5596	5863
55-59	5511	5925	5732	5339
60-64	4923	5201	5600	5421

Source: U.S. Bureau of the Census, 1975a:67-82.

Table 4. Estimated percent holding equalitarian views on sex roles and change in sex-role attitudes: 1975-1990

<u>Percent holding equalitarian views</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
high (5.0 points/yr)	59.0	87.4	100.0	100.0
moderate (2.4 points/yr)	59.0	74.4	89.5	100.0
low (cohort succession only)	59.0	62.4	65.5	68.2
<u>Change</u>				
	<u>1975-1980</u>	<u>1980-1985</u>	<u>1985-1990</u>	
high	28.4	12.6	-	
moderate	15.4	15.1	10.5	
low	3.4	3.1	2.7	

a) Calculated by assuming only cohort succession for the low estimate, cohort succession plus an increase of 2.4 percentage points per year in percent holding equalitarian attitudes for the moderate projection, and cohort succession plus an annual change of 5.0 percentage points in the percent holding equalitarian attitudes for the high projection.

Table 5. Implied increases in female labor force participation due to change in attitudes toward sex roles: 1975-1990.

	<u>Increases in Female Labor Force Participation<sup>a</sup></u>			
	<u>1975-1980</u>	<u>1980-1985</u>	<u>1985-1990</u>	<u>1975-1990</u>
high	15.3	6.8	-	22.1
moderate	8.3	8.2	5.7	22.1
low	1.8	1.7	1.5	5.0
<u>Adjusted for Marital and Child Status</u>				
<u>High-all ever-married women<sup>b</sup></u>				
high	12.9	5.7	-	18.6
moderate	7.0	6.9	4.8	18.6
low	1.5	1.4	1.3	4.2
<u>Low-currently married women with family members 18 only<sup>c</sup></u>				
high	6.7	3.0	-	9.7
moderate	3.7	3.6	2.5	9.7
low	0.8	0.7	0.7	2.2

<sup>a</sup> Calculated by applying the regression - standardized, percentage-point change in labor force participation associated with a one percentage-point change in sex-role attitudes (.54) to the estimate of change in sex-role attitudes shown in the lower panel of Table 4.

<sup>b</sup> Assuming that increases in sex-role attitudes influence the labor force behavior only of ever-married women (84 percent)

<sup>c</sup> Assuming that increases in sex-role attitudes influence the labor force behavior only of currently married women with family members under 18 years old (44 percent)

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